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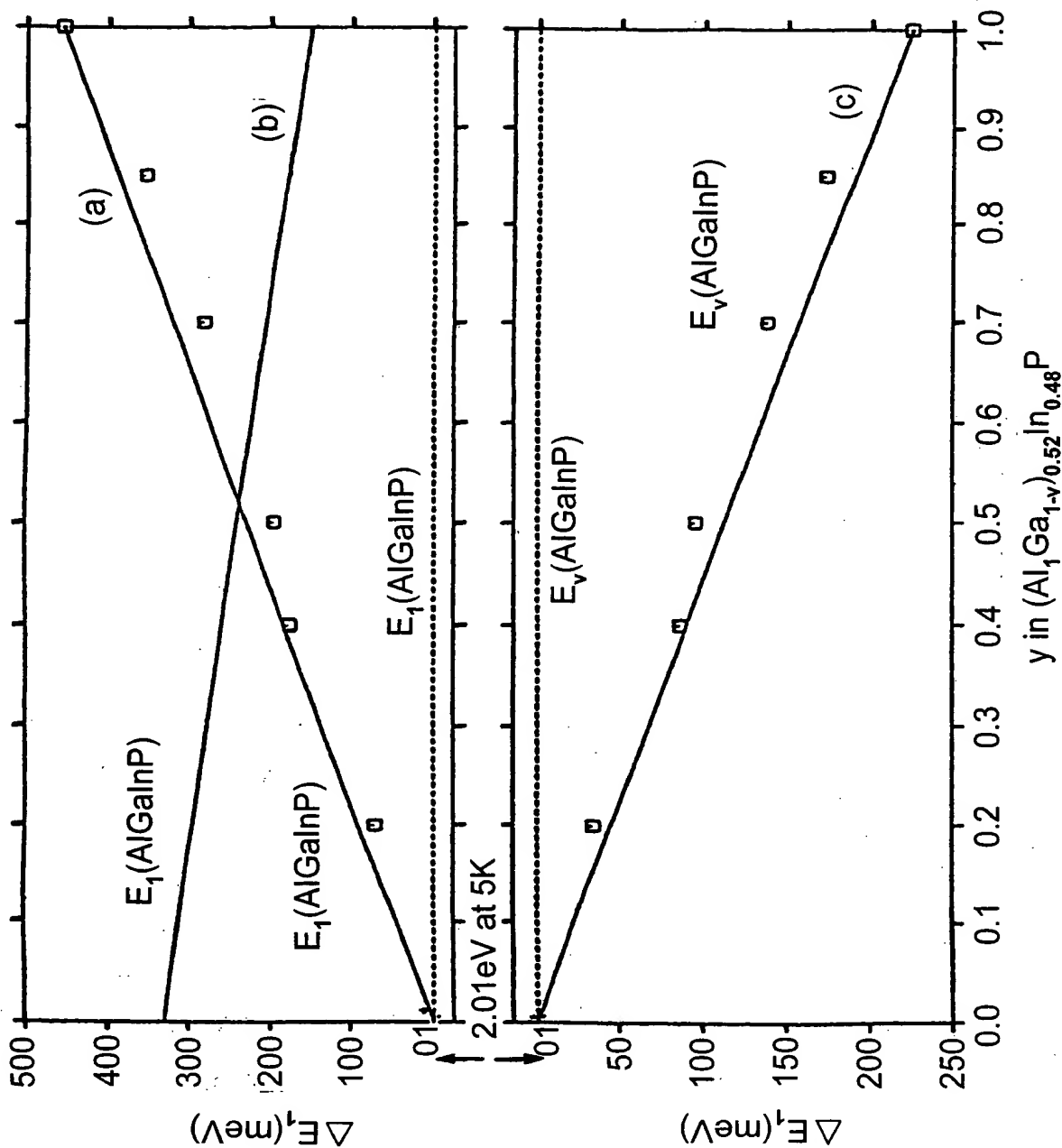


FIG. 1

A diagram of the variation of the $\text{Ga}_{0.25}\text{In}_{0.48}\text{P}/(\text{AlGa})\text{InP}$ heterobarrier height (meV) as a function of aluminum mole fraction in the quaternary alloy assuming a 70 : 30 band offset ratio



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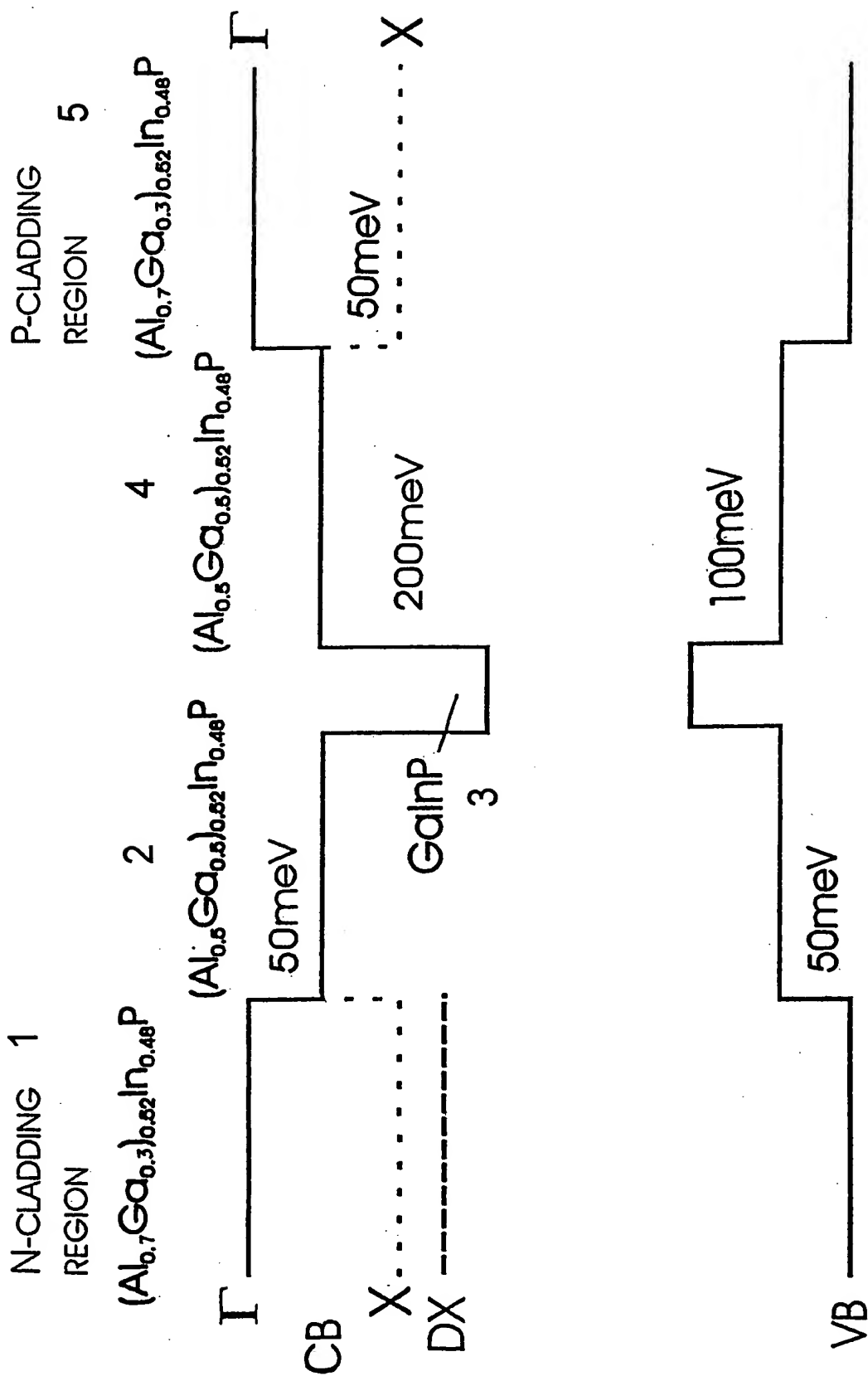


FIG. 2

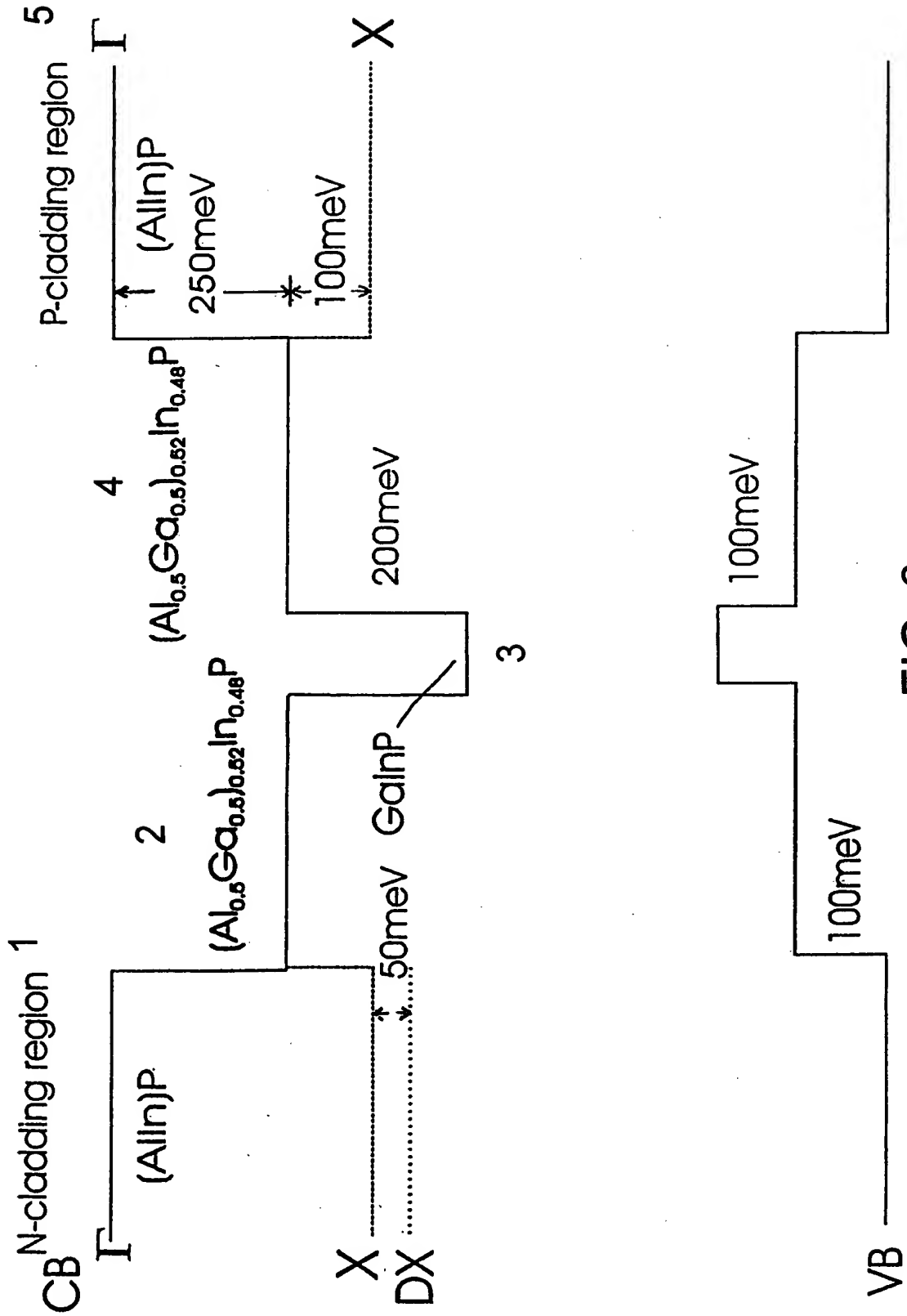


FIG. 3

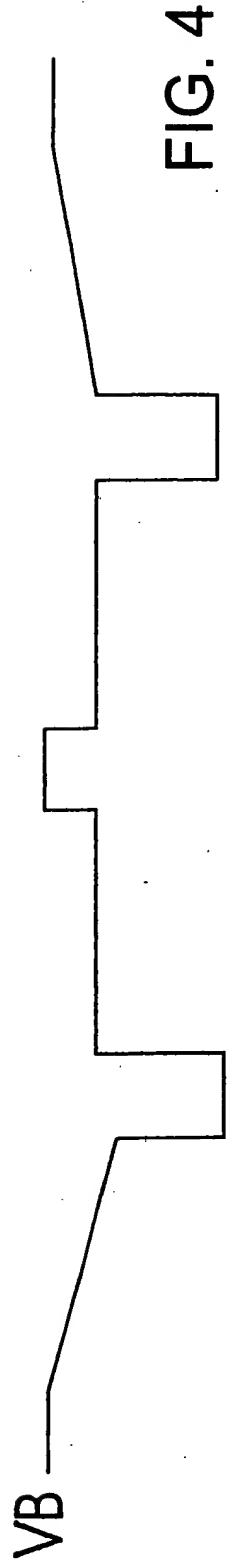
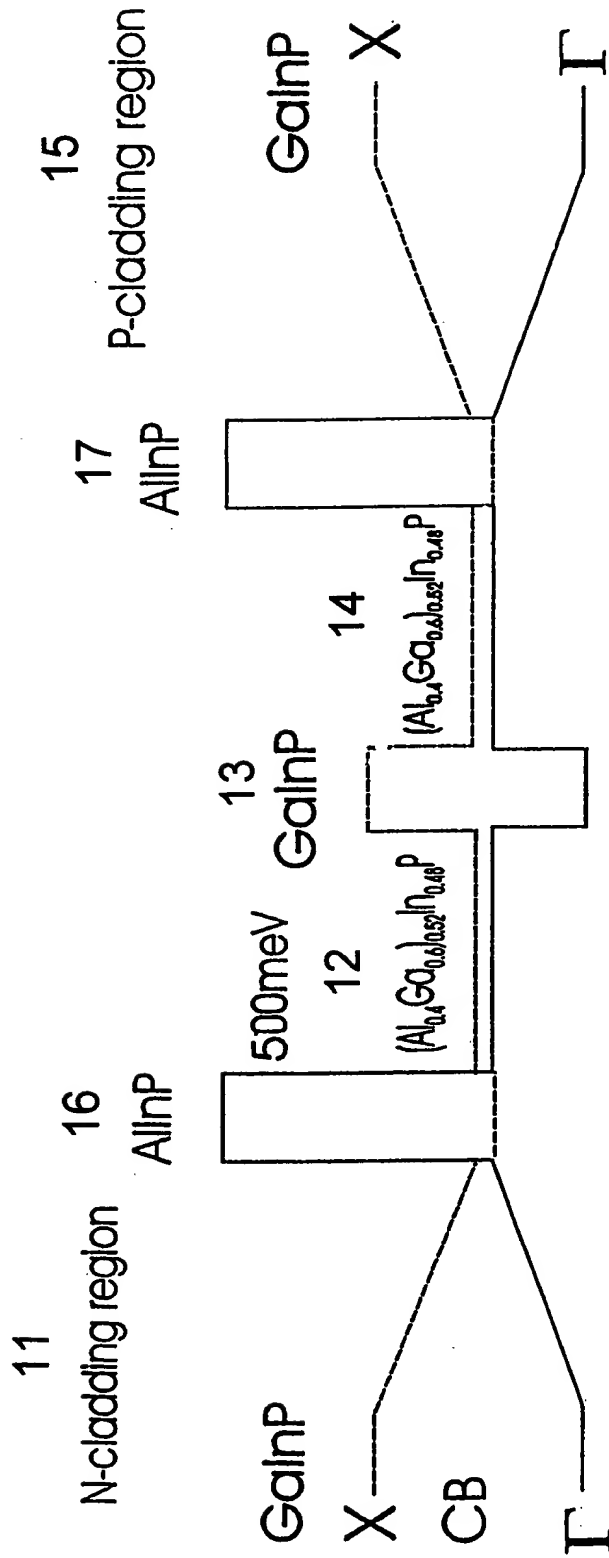


FIG. 4

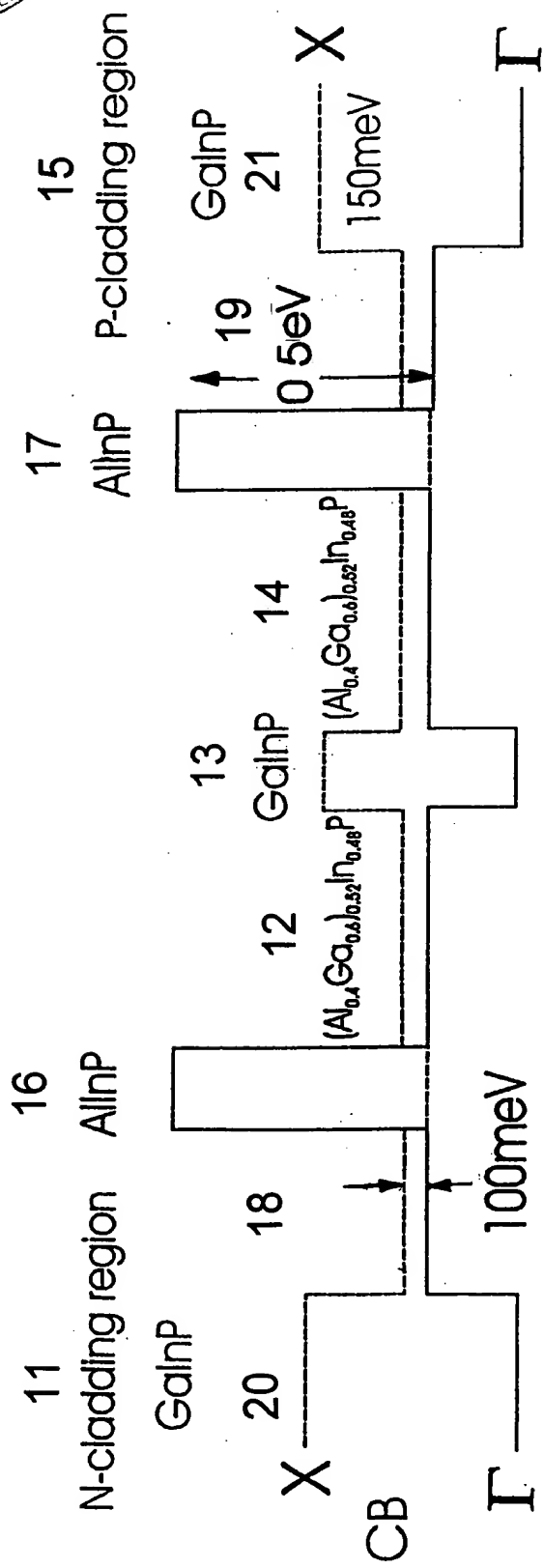
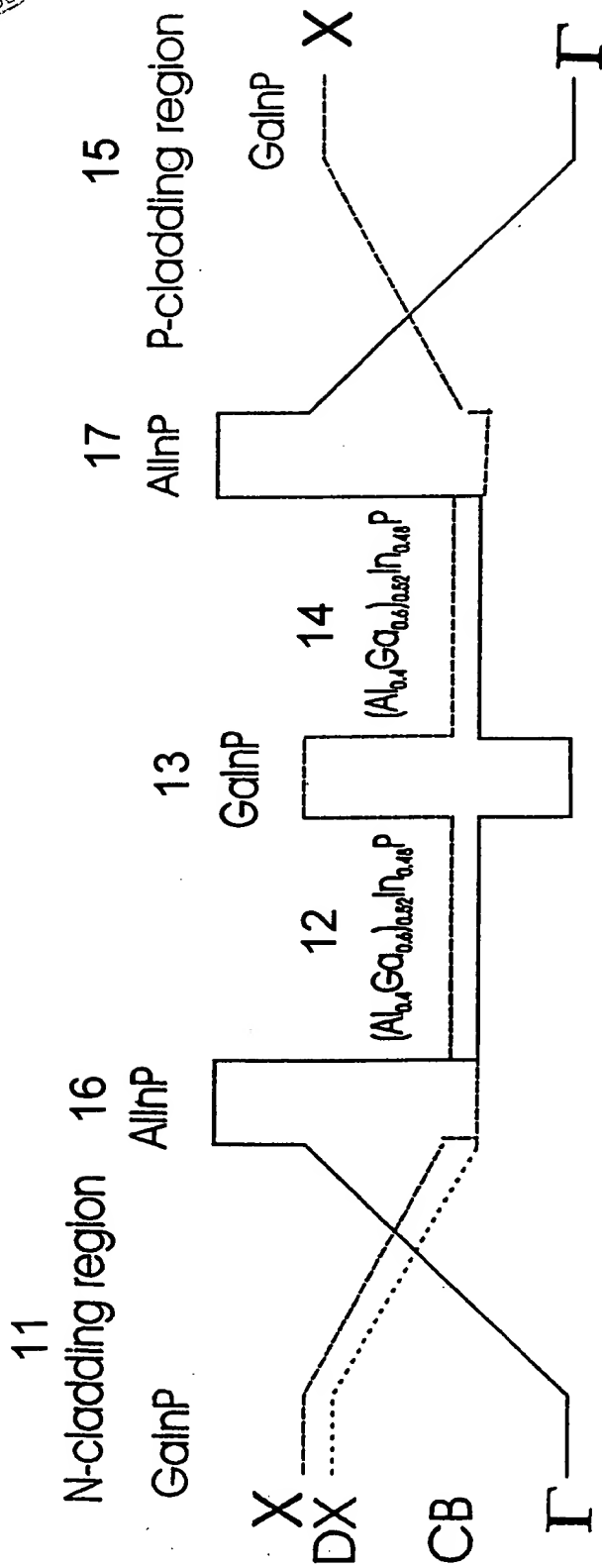


FIG. 5



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VB

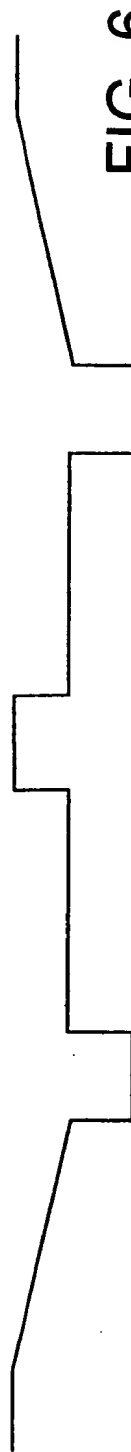


FIG. 6



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GaInP Silicon Doping

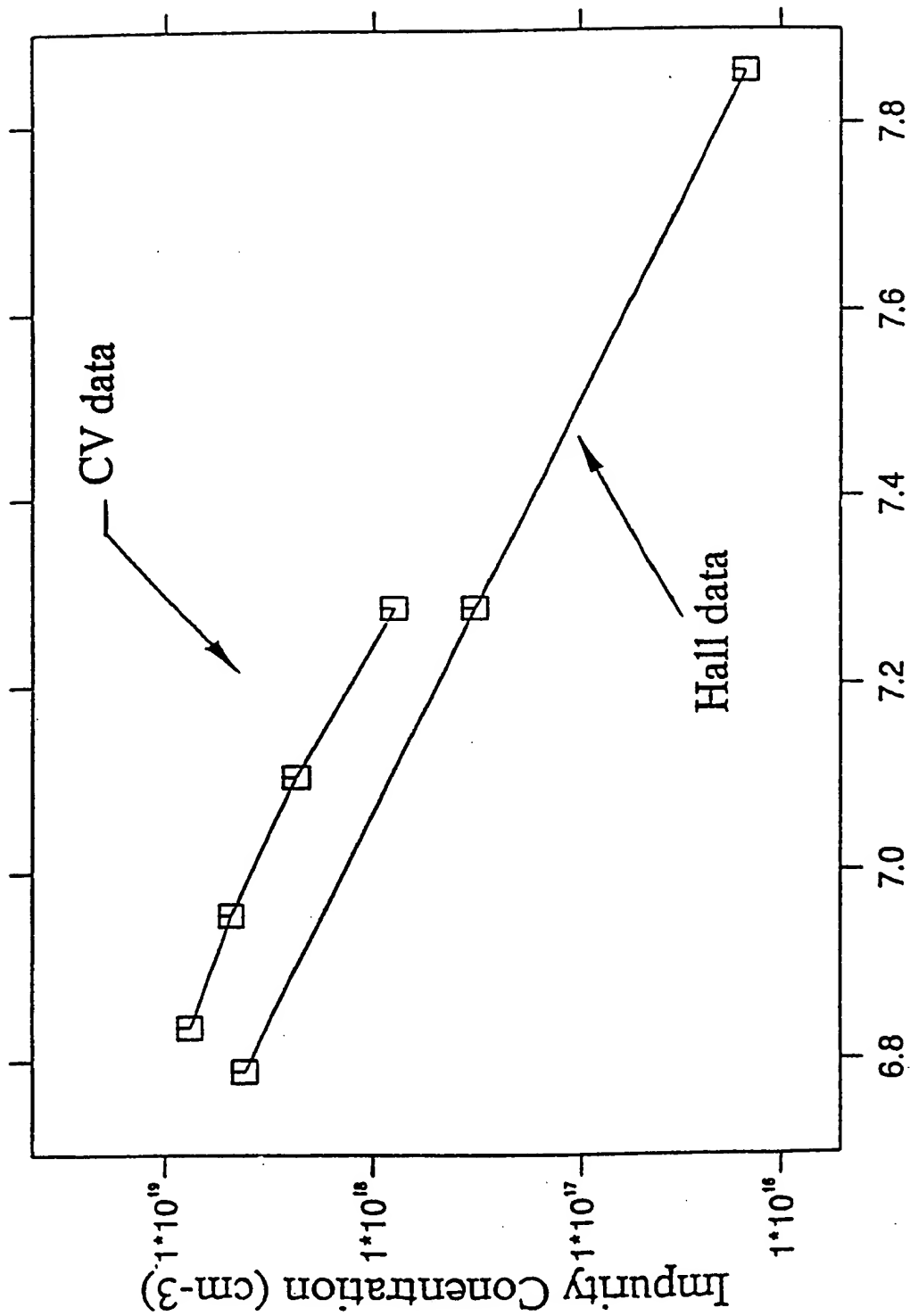


FIG. 7



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AlGaInP (y=0.7) Silicon Doping

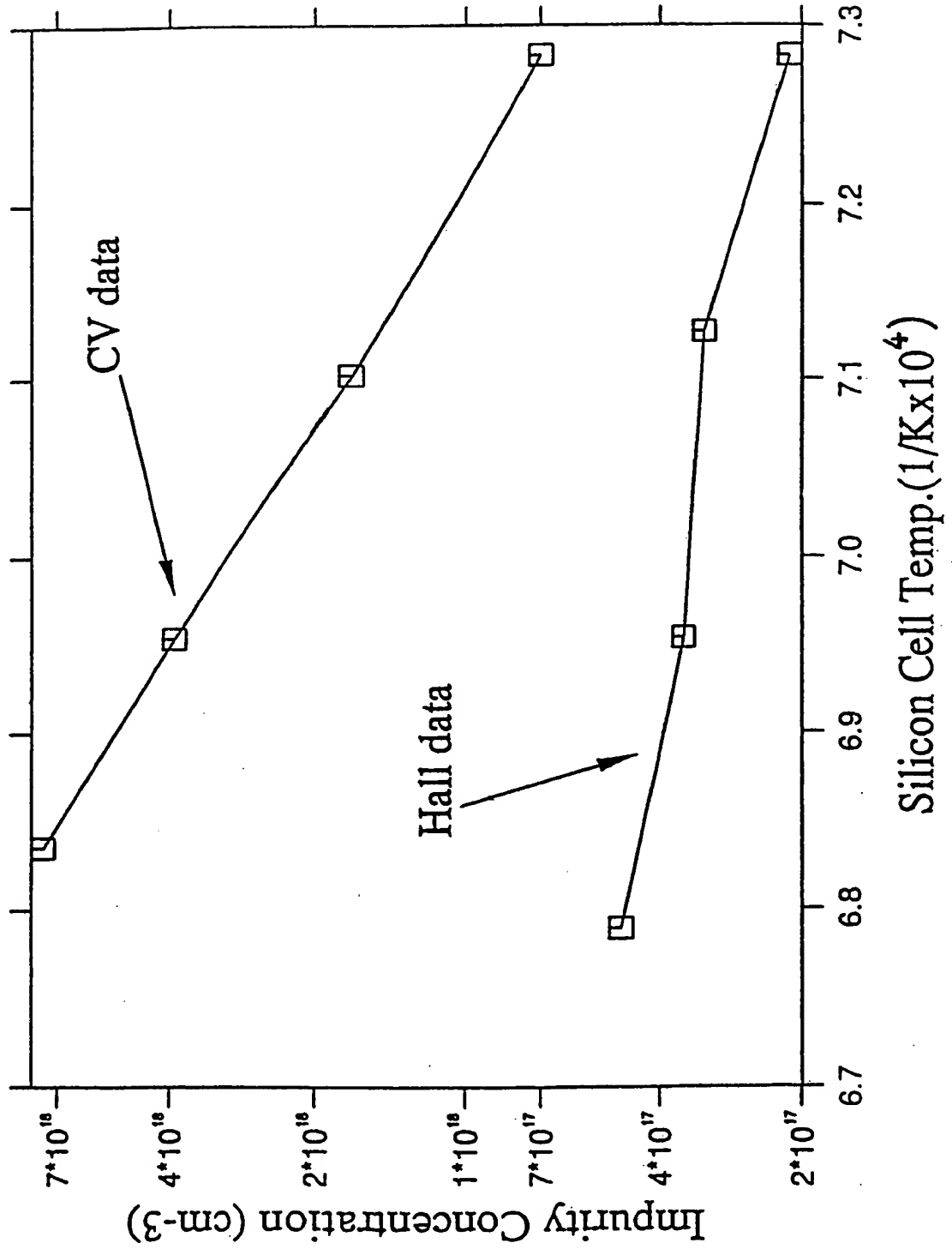


FIG. 8



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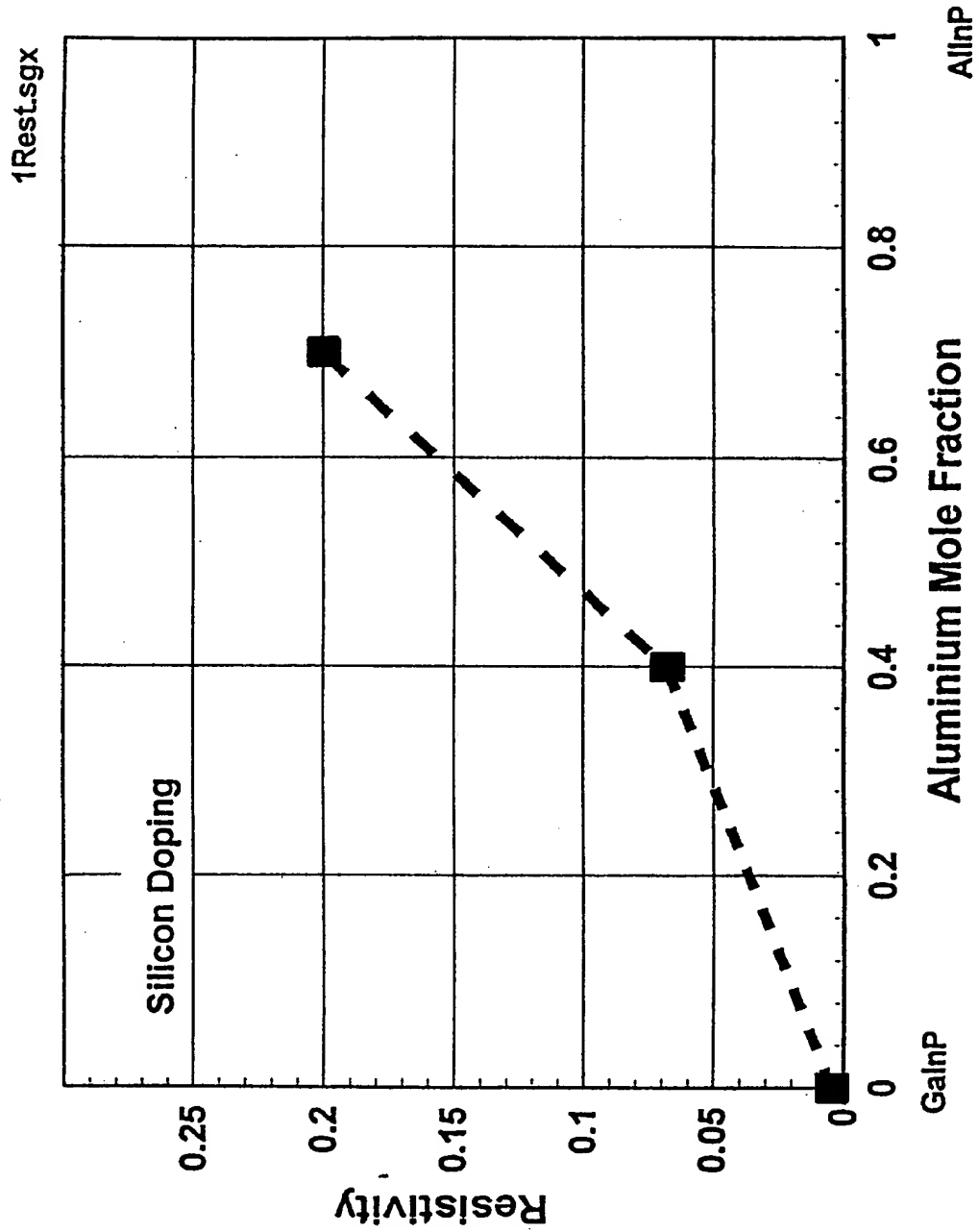
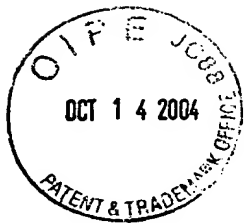


FIG. 9



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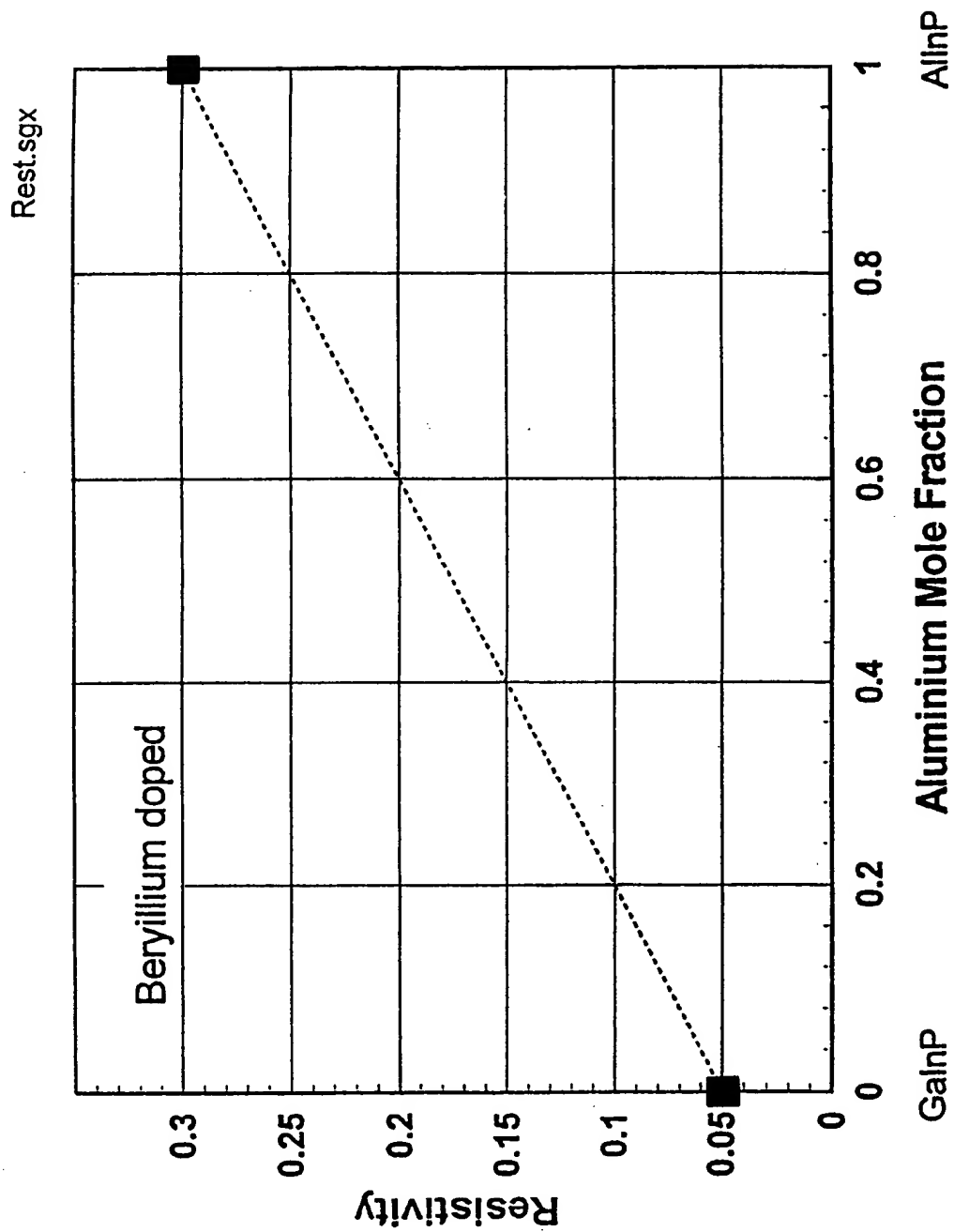


FIG. 10

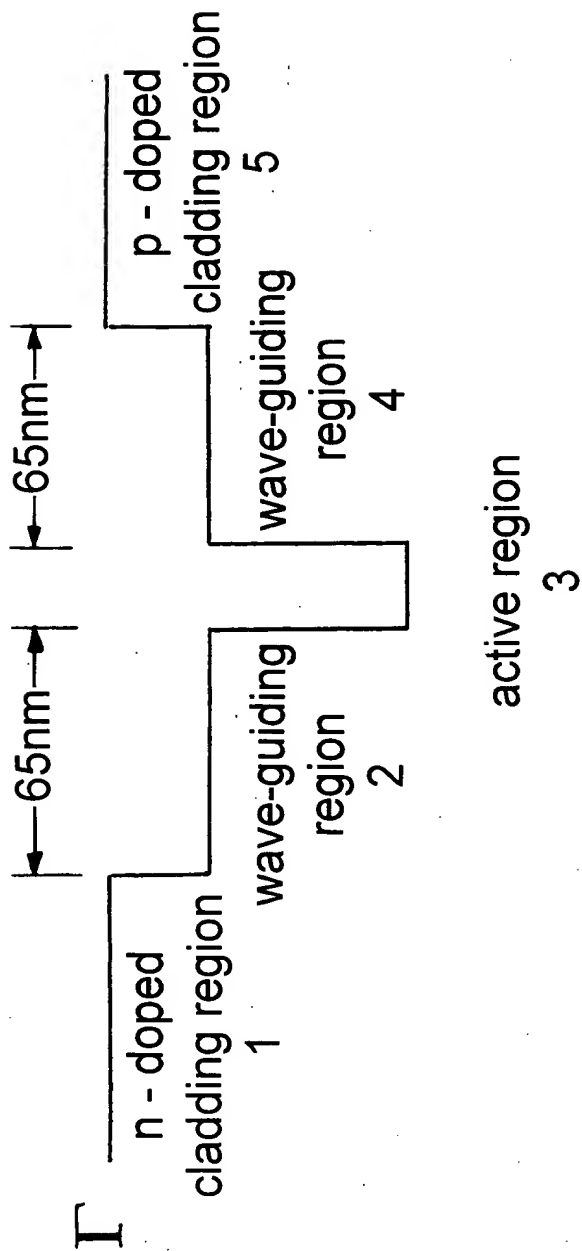


FIG. 11(a)



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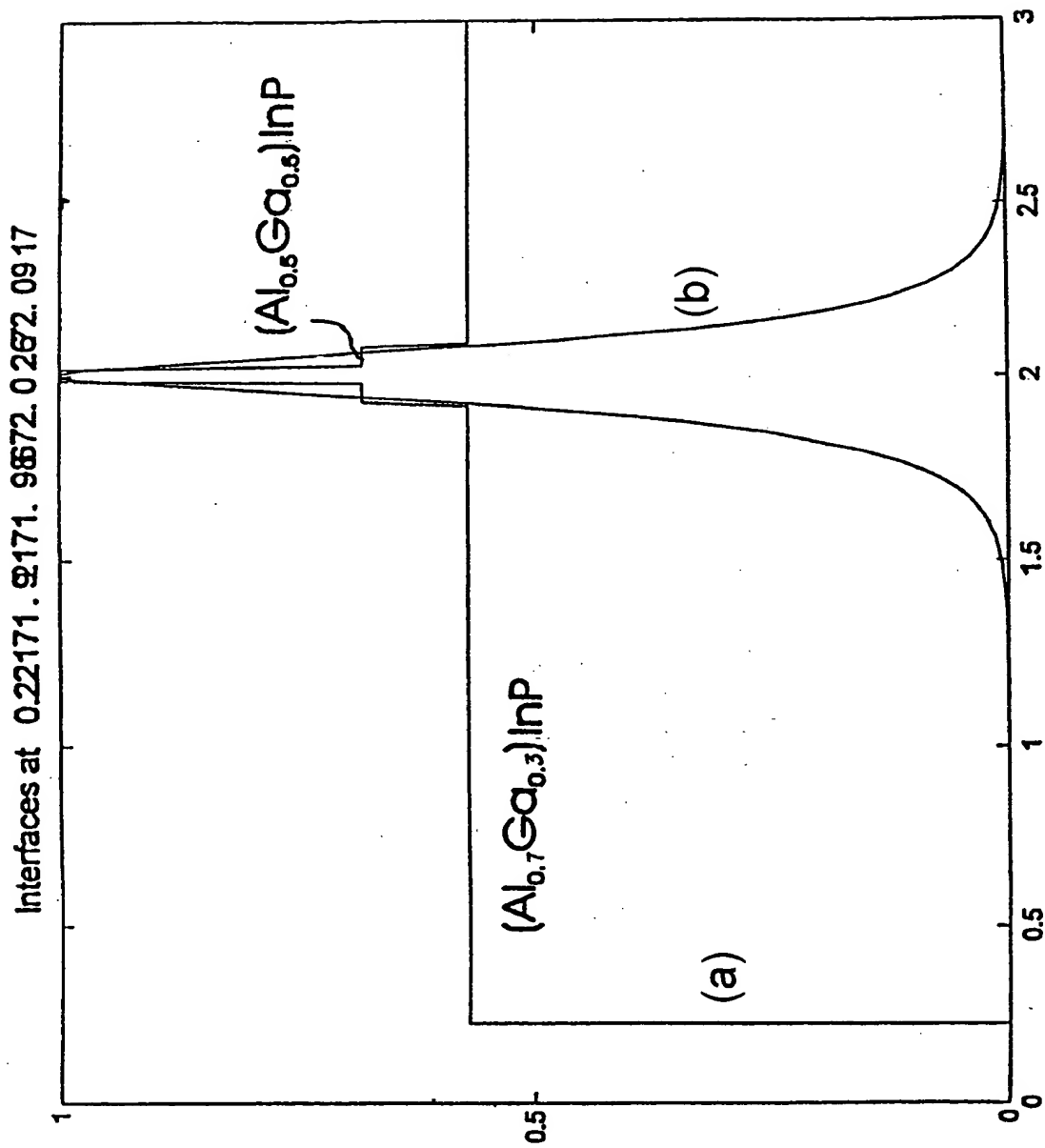


FIG. 11(b)

AlGaInP

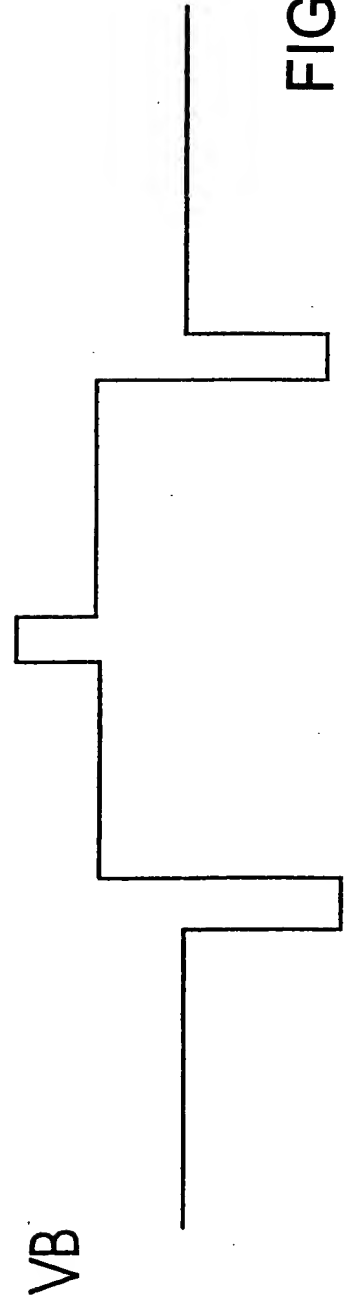
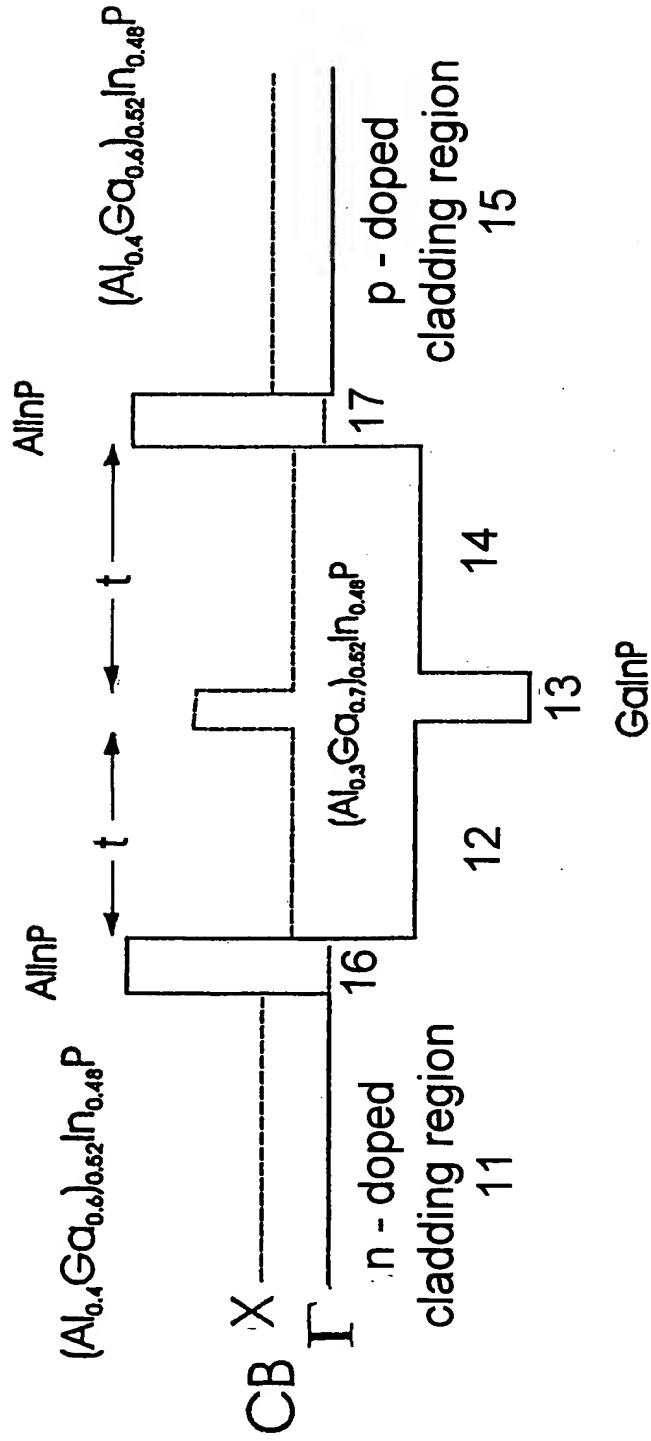


FIG. 12

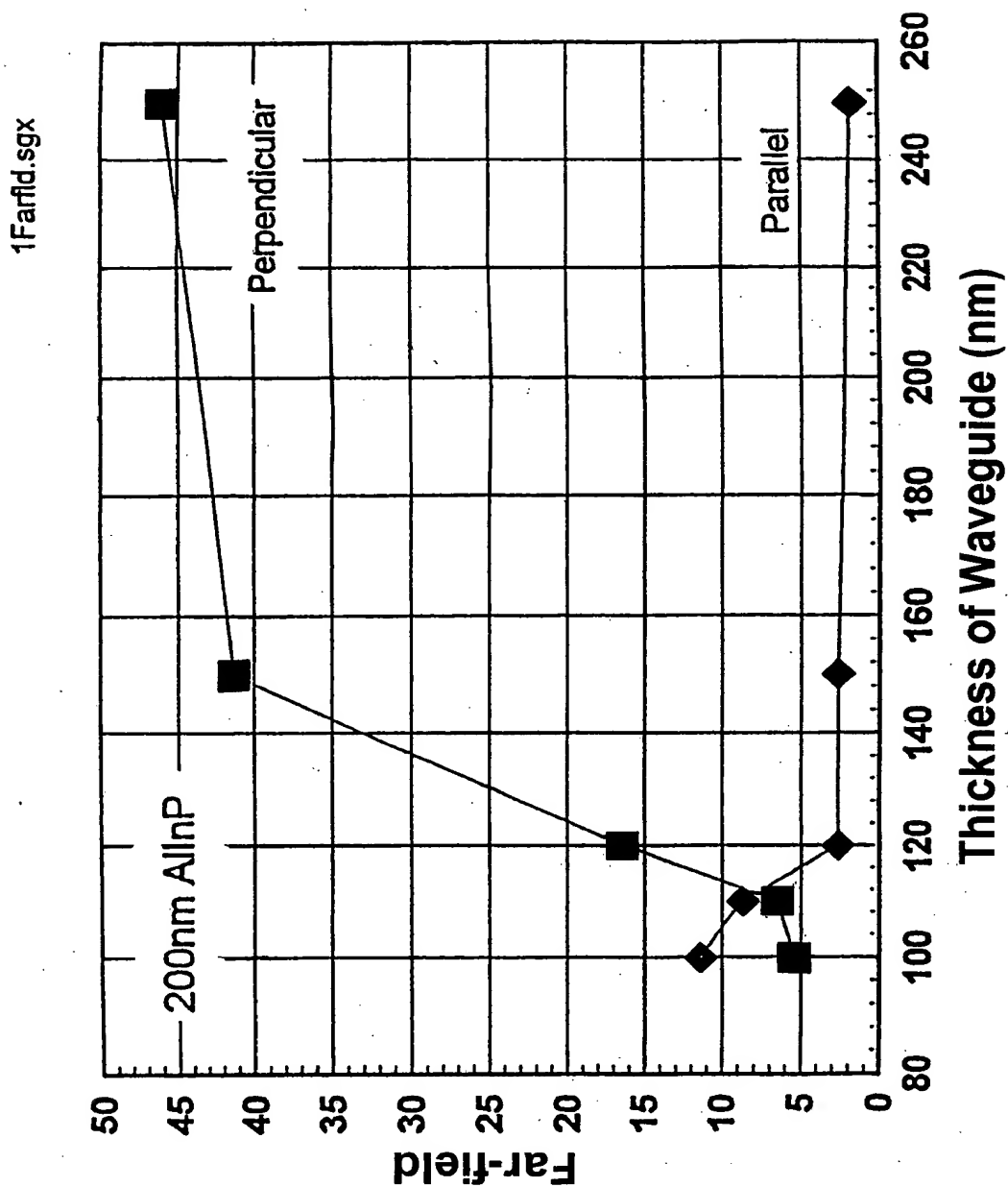


FIG. 13(a)



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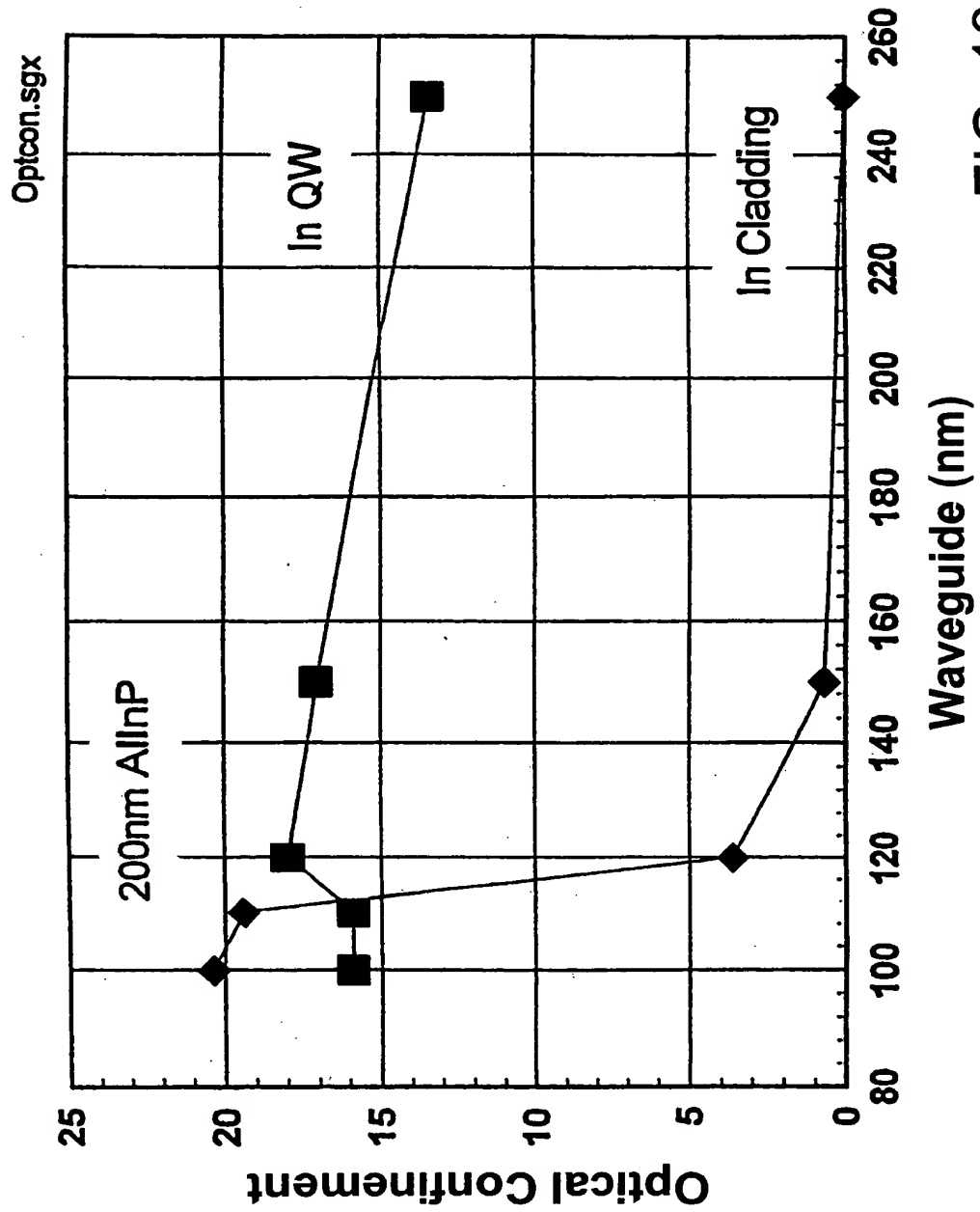


FIG. 13(b)



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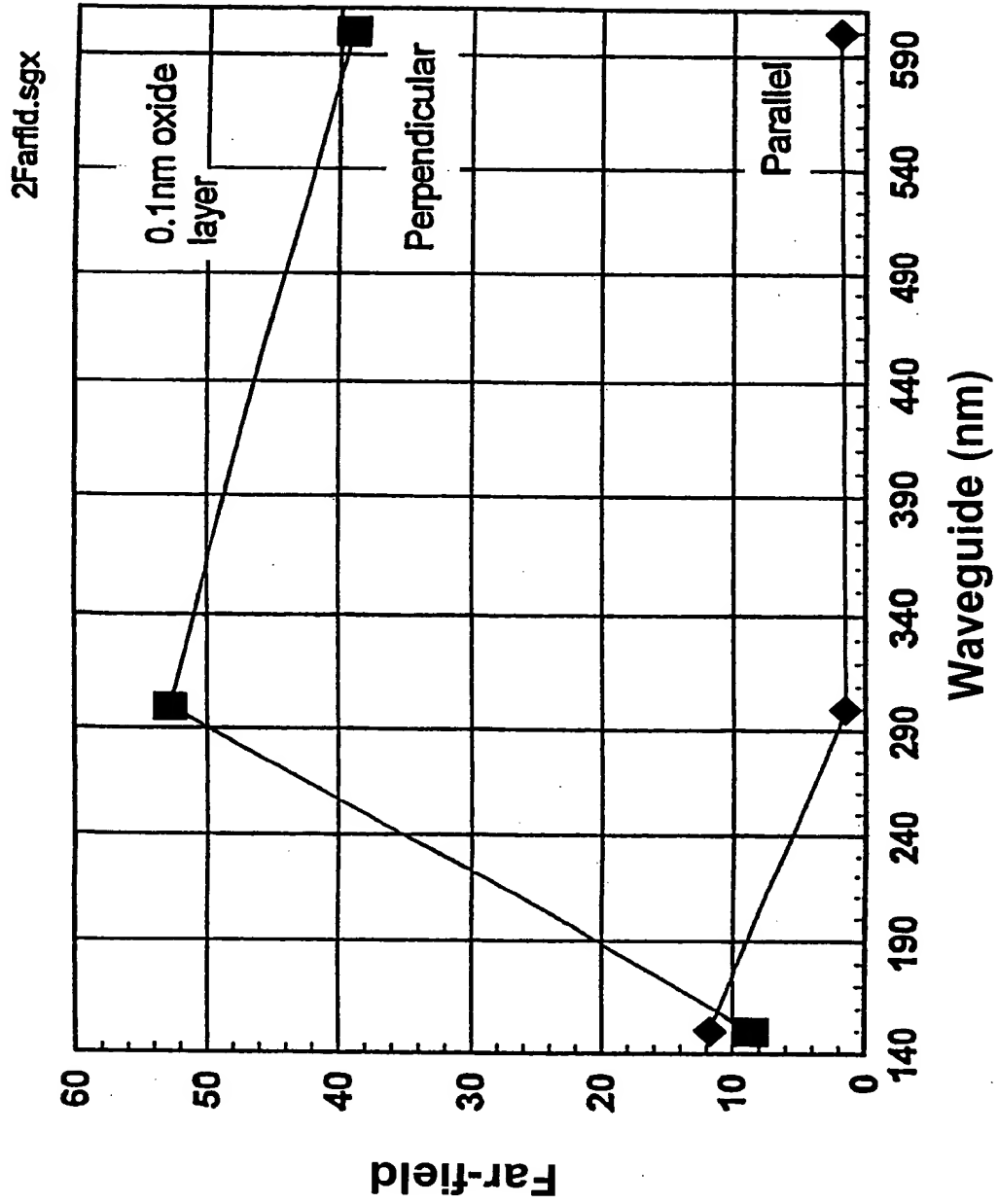


FIG. 14(a)



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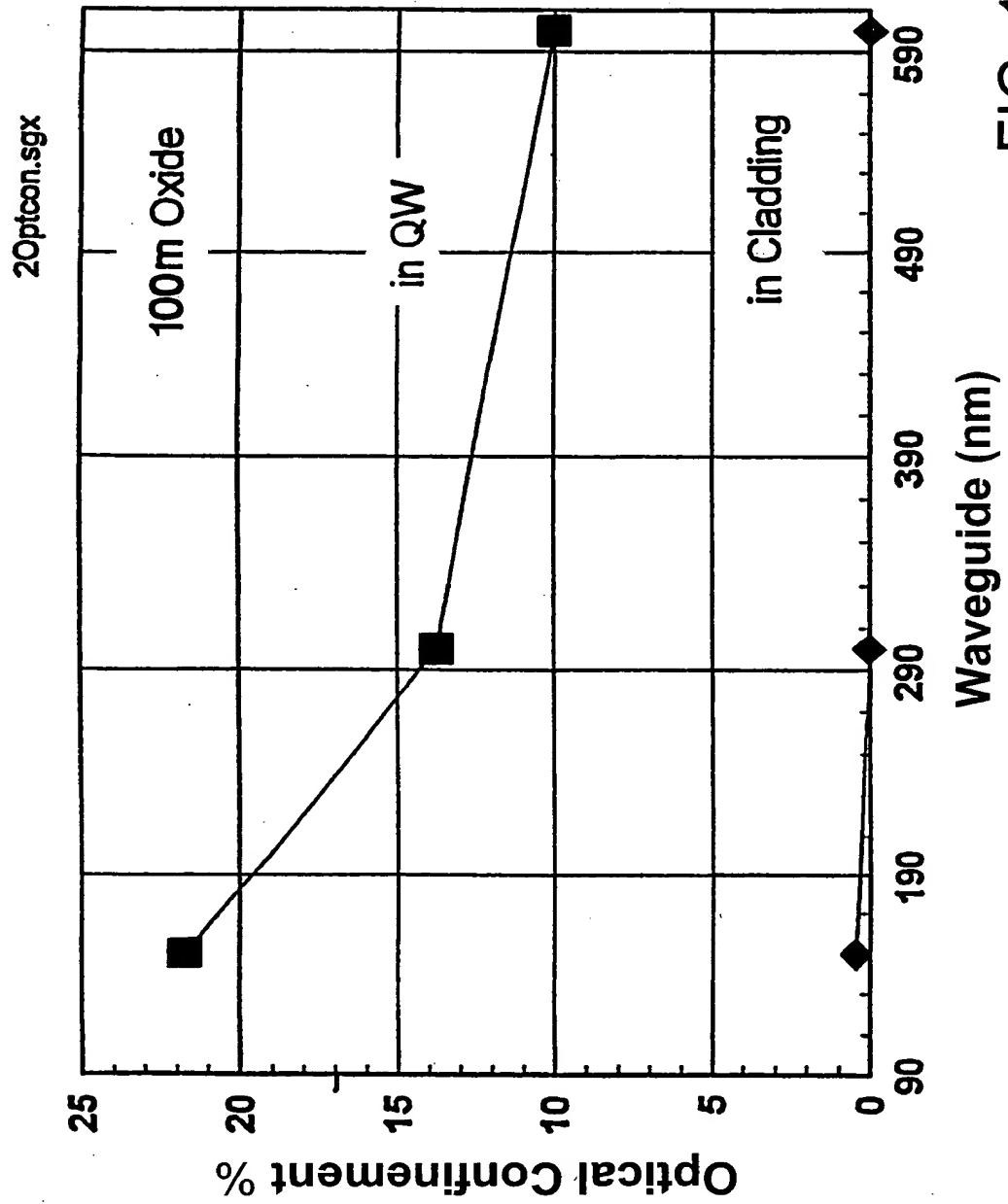


FIG. 14(b)